Claims

1-10 (Canceled)

11. (New) A method for controlling a compressor (2), which is suitable for conveying a pressure medium in a closed pressure medium system, the method comprising the steps of

continuously determining the current compressor temperature at least during compressor operation,

switching off the compressor (2) no later than when reaching a limit temperature, wherein the admission pressure and the counterpressure of the compressor (2) are taken into consideration for determining the current compressor temperature.

12. (New) The method for controlling a compressor (2) as claimed in claim 11, comprising the step of adapting, during compressor operation, the current compressor temperature by a temperature value dT after every elapsed unit of time dt, said temperature value dT being dependent on the difference $p_{counter} - p_{admission}$ between the counterpressure and the admission pressure.

13. (New) The method for controlling a compressor (2) as claimed in claim 12, wherein the functional relationship between the temperature value dT and the difference $p_{counter} - p_{admission}$ is stored as a characteristic diagram in a control unit for the compressor (2).

14. (New) The method for controlling a compressor (2) as claimed in claim 12, wherein a fixed temperature value dT is predefined as a function of the difference $p_{counter} - p_{admission}$ present at the beginning of compressor operation.

15. (New) The method for controlling a compressor (2) as claimed in claim 14, wherein, for a difference $p_{counter} - p_{admission}$ greater than zero, the temperature value dT is predefined as being the value associated with the maximum possible difference $p_{counter} - p_{admission}$.

16. (New) The method for controlling a compressor (2) as claimed in claim 14, wherein, for a difference $p_{counter} - p_{admission}$ less than or equal to zero, the temperature value dT is predefined as being the value associated with the difference $p_{counter} - p_{admission}$ = zero.

17. (New) The method for controlling a compressor (2) as claimed in claim 12, for a level adjustment system in a motor vehicle, wherein the traveling speed of the motor vehicle is additionally taken into consideration when predefining a temperature value dT.

18. (New) The method for controlling a compressor (2) as claimed in claim 12, wherein the compressor is electrically operated and the electrical compressor voltage is additionally taken into consideration when predefining a temperature value dT.

19. (New) The method for controlling a compressor (2) as claimed in claim 11, including the step of defining a maximum operating time for the compressor (2) at the beginning of compressor operation.

20. (New) A compressor (2) unit, which can be switched on and off as a function of demand, for a closed pressure medium system, the compressor unit comprising a compressor and a control unit associated with said compressor (2), said control unit being designed to continuously determine the current compressor temperature, at least during compressor operation, and to switch off the compressor (2) no later than when a stored limit temperature is reached, wherein the control unit is capable of taking into account admission pressure and counterpressure of the compressor for determining the current compressor temperature.

21. (New) The compressor unit of claim 20, designed for a closed level adjustment system of a motor vehicle,